

REMARKS

Status of Claims

Claims are amended as indicated in preceding list of claims. Claims 1-3 and 20 - 40 are pending. Claims 1 – 3 and 20 – 24 have been allowed. Claim 8, 14, 16 – 19 were previously cancelled. Claims 4 – 7, 9 – 13 and 15 are now cancelled. Claims 25 – 40 are new.

Claim Rejections – 35 USC § 112

Claim 9 is cancelled. New claims 25 - 40 have been submitted that avoids the rejected indefinite terminology.

Claim Rejections – 35 USC § 103

Claims 4 – 7, 9 – 13 and 15 have been rejected under 35 USC 103(a) as being unpatentable over Argraves (US 6,298,850). New claims 25 – 40 are submitted. Examiner stated that the Argraves reference discloses a nasal cannula including at least one support tube substantially as claimed and that it would have been obvious to modify the material as claimed. New independent claim 25 claims a cannula geometry specific to the instant invention and patently distinguishable from Argraves. The instant invention is directed at a three dimensional geometry for the cannula such that the placement of the cannula on the patient's face and direction of the orifice is maintained without a requirement for tension to be placed upon the cannula. This enables the use of the more flexible tubing for support tubing. Argraves uses an elastic cord to maintain tension and a nosepiece geometry to relieve pressure upon the nasal septum, but transfers the pressure primarily to softer tissue of the outer nostril walls (Argraves, column 3, line 32). The detailed geometry and the primary benefit of the two inventions are distinguishable as the following discussion will show.

Argraves does in fact disclose a nasal cannula, however primary contact is with the softer tissue of the outer nostril wall (Argraves, column 3, line 32). The items 20/25 referred to in Argraves refer to the support or supply tube and not to the hollow tubular member of the cannula nosepiece. Argraves does not however teach the geometry of the hollow extensions and the relation of these hollow extension to the geometry of the hollow

tubular member. The instant invention claim 25, claims the “longitudinal axis projecting from said central portion at an acute angle”... The extensions are not in the same plane as the hollow tubular member. There is no teaching within Argraves of hollow tubular extensions angled away from the central member and in fact a reasonable conclusion from Argraves Figure 3 and the associated discussion is that all of the elements 10, 15, 13 and 17 are in fact in the same plane. The instant application has the tubular extension projecting at an acute angle out of the plane formed by the central hollow tubular member. Examiner is also pointed to Figures 2 and 3 of the instant invention where the tubular extensions 17 and 18 of Figure 3 and therefore the orifice (19 of Figure 2) are at an acute angle from said first plane of the angled central hollow tube member. Further, the hollow extensions terminating in gas directing orifices “... having a longitudinal axis lying in a second plane essentially parallel to and displaced from said first plane...” Again, there is no indication in Argraves Figure 3 or its discussion that the longitudinal axis of elements 13 and 17 are in a plane displaced from and parallel to the plane defined by the central elements 10 and 15. This displaced plane for the terminating orifices is clearly shown in Figure 2 of the instant application element 19.

Claim 25 further includes “...shape of said hollow tubular member and length of said end portions selected to cause the center-of-gravity of said cannula to lie below said center points of the open ends of said hollow tubular member.” See Abstract, Figures 4, 6 and 7. It is the selection of the geometry so described, with several illustrations in Figure 7 that enables use of the softer material of the dependent claims 31 – 40. Dependent claims 26 – 30 further narrow the novel geometry of claim 25 with specific geometries taught in Figure 4, 5 and 7 and discussed in specification paragraphs 39 – 46.

The rejected claims have been replaced with new claims that are distinguishable from the cited reference. Applicant therefore respectfully asserts that all claims are patentable and the entire application is now in condition for allowance.

Respectfully Submitted,

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